

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P545121

Luminaire Tested: **FMR-12-1-LD4-2LO-50-UNV-81-86-EDD**

Issue Date: 6/15/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P545121
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 6/15/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-12-1-LD4-2LO-50-UNV-81-86-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

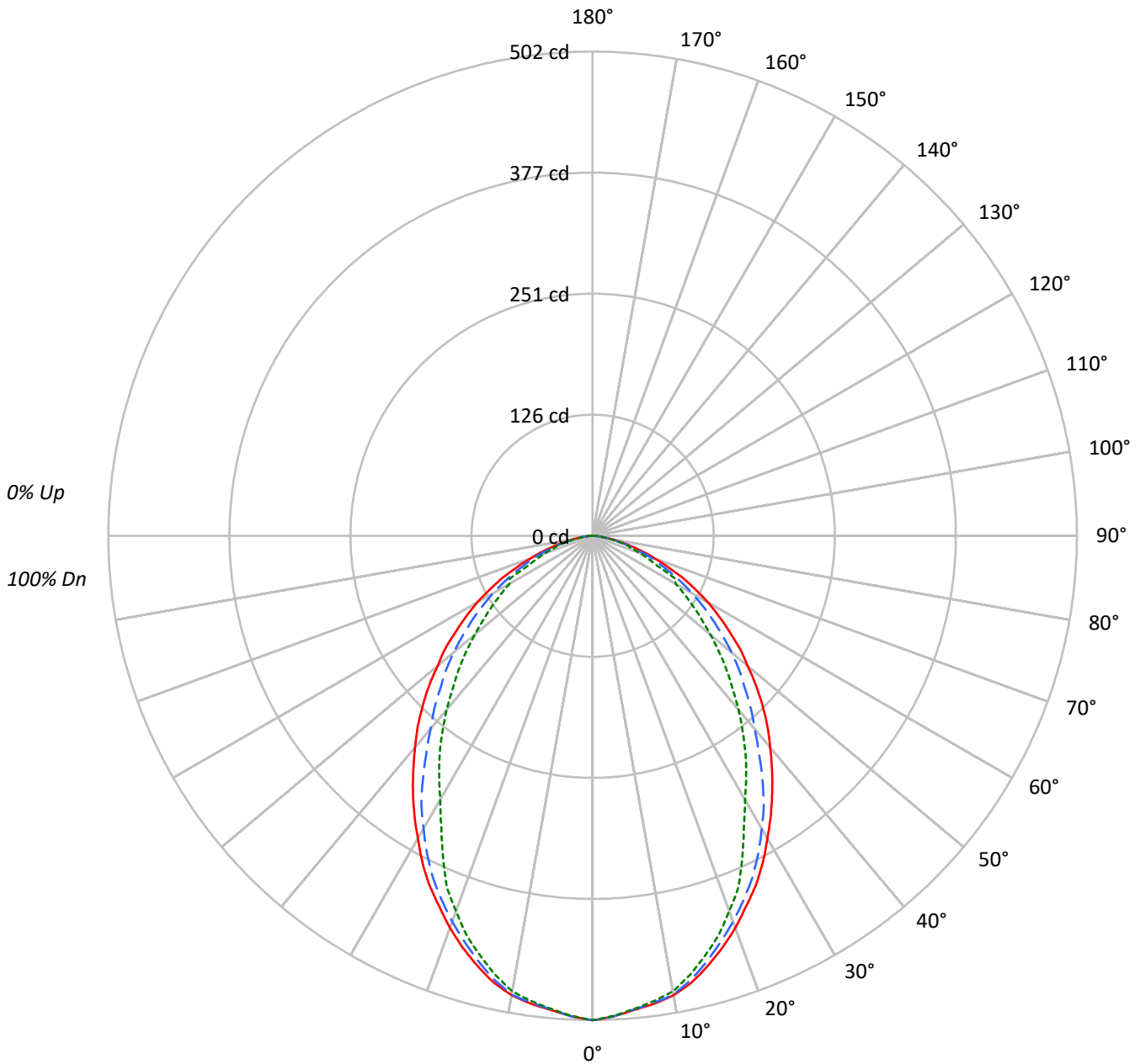
Lumens per Lamp: N/A
Luminaire Lumens: 986.0 lumens
Efficiency: N/A
Efficacy: 84.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5407	5407	5407
5°	5332	5327	5320
10°	5287	5280	5242
15°	5144	5093	5021
20°	4955	4875	4742
25°	4752	4649	4359
30°	4503	4359	3926
35°	4265	4029	3632
40°	4023	3672	3305
45°	3792	3395	2988
50°	3510	3150	2664
55°	3247	2854	2387
60°	2975	2551	2138
65°	2618	2234	1892
70°	2156	1954	1608
75°	1713	1497	1568
80°	1153	1079	1010
85°	716	865	1000



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.8	4.7
10°-20°	128.3	13.0
20°-30°	177.6	18.0
30°-40°	189.4	19.2
40°-50°	172.8	17.5
50°-60°	135.4	13.7
60°-70°	88.2	8.9
70°-80°	39.1	4.0
80°-90°	8.4	0.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	352.7	35.8
0°-40°	542.1	55.0
0°-60°	850.3	86.2
0°-90°	986.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	986.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	502	502	502	502	502	
5°	494	493	493	492	492	47
15°	462	462	457	452	451	130
25°	400	398	391	377	367	184
35°	325	322	307	283	276	203
45°	249	244	223	204	196	192
55°	173	168	152	134	127	155
65°	103	97	88	89	74	101
75°	41	38	36	34	38	44
85°	6	6	7	8	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	502.3	502.3	502.3	502.3	502.3
2.5°	498.8	498.8	498.8	498.2	498.2
5°	493.5	493.0	493.0	492.4	492.4
7.5°	489.5	488.9	488.3	487.7	486.6
10°	483.7	483.7	483.1	480.2	479.6
12.5°	474.4	473.8	471.5	467.4	466.3
15°	461.6	461.6	457.0	452.3	450.6
17.5°	447.7	447.1	441.3	436.6	434.3
20°	432.6	431.4	425.6	418.1	414.0
22.5°	415.7	415.7	408.8	398.9	394.8
25°	400.1	397.7	391.4	377.4	367.0
27.5°	382.1	378.6	371.6	351.9	339.7
30°	362.3	360.6	350.7	325.2	315.9
32.5°	343.7	340.8	330.4	303.7	296.1
35°	324.6	322.3	306.6	283.4	276.4
37.5°	305.4	302.5	282.8	264.2	255.5
40°	286.3	282.8	261.3	244.5	235.2
42.5°	268.3	263.6	242.7	224.7	214.3
45°	249.1	243.9	223.0	204.4	196.3
47.5°	229.9	225.3	206.1	187.0	177.7
50°	209.6	205.5	188.1	169.0	159.1
52.5°	192.8	186.4	169.5	150.4	142.3
55°	173.0	167.8	152.1	134.1	127.2
57.5°	155.0	149.8	135.3	118.5	112.6
60°	138.2	130.6	118.5	103.9	99.3
62.5°	119.6	113.8	103.4	91.2	97.0
65°	102.8	97.0	87.7	89.4	74.3
67.5°	84.2	81.3	73.2	65.0	62.7
70°	68.5	65.0	62.1	53.4	51.1
72.5°	54.6	51.1	47.0	42.4	40.6
75°	41.2	38.3	36.0	34.3	37.7
77.5°	28.5	27.3	25.5	23.8	23.2
80°	18.6	18.0	17.4	16.8	16.3
82.5°	11.0	11.0	11.0	11.0	11.0
85°	5.8	6.4	7.0	7.5	8.1
87.5°	3.5	3.5	4.1	4.6	5.2
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)